

## ATTACHMENT A

### Remarks

By this Amendment, independent claims 1 and 7 have been amended for clarity and to better define the invention. Most dependent claims have also been amended consistent with the changes to the independent claims. It is submitted that the present application is in condition for allowance for the following reasons.

In the *Claim Rejections - 35 USC § 102* section of the Detailed Action, independent claims 1 and 7 together with dependent claims 2-3 and 8-9 were rejected under 35 USC § 102 as being anticipated by the Buhrer patent. However, for the following reasons, it is submitted that amended independent claims 1 and 7 and the claims dependent therefrom are allowable over this reference.

As now more particularly claimed in independent claims 1 and 7, the present invention includes an apparatus and method by which sand from a belt conveyor is delivered directly to a flask. This direct delivery is required in order to achieve the desired variable distribution of the sand in the flask. In the Buhrer patent, the sand is delivered from the belt conveyor to an intermediate container, and then after two layers of sand are provided in the intermediate container, that layered mixture is delivered into a flask.

As also more particularly claimed in independent claims 1 and 7, the directly delivered sand is delivered from the discharge end of the belt conveyor so that the sand is variably cast from the discharge end and hence variably distributed. Thus, to spread the sand and control its direct deposition in the flask, the belt conveyor speed is variably controlled, in order to provide varying casting distances of the sand cast from the discharge end of the belt conveyor. By contrast, there is no teaching in the Buhrer patent of the use of a variable casting distance of the

sand, particularly as controlled by the speed of the conveyor, to effect a desired variable distribution of the sand as particularly claimed. Thus, there is also nothing in the Buhrer patent to make this recited feature obvious.

Further, the controlled distribution of the cast sand is thus achieved, and is now particularly claimed as occurring, without any movement of the discharge end of the belt conveyor relative to the flask. In the Buhrer patent, the intermediate container is arranged beneath the discharge devices (belt conveyors) of the two types of sand, and plates 6, 7, 22, 23 are used to guide the sand which falls off of the discharge devices into the intermediate container in conjunction with the movement of the intermediate container. As recited in the Buhrer patent, the inventive technique “relies upon the features of moving an intermediate container and/or the discharge devices relative to one another” (see column 3, lines 22-23). Thus, the Buhrer patent teaches the use of movement of the intermediate container as necessary to effect the desired sand distribution, a movement specifically precluded by independent claims 1 and 7.

It will further be appreciated that the purpose of the Buhrer patent is to effect a uniform layer in the intermediate container. The use of a variable speed of the belt conveyor would make the deposition of a uniform layer extremely difficult, since the variable delivery rates would then have to be compensated for. Therefore, the Buhrer patent also teaches away from the present invention in that respect.

Therefore, in view of the noted differences between the present invention as now particularly claimed in independent claims 1 and 7 and the invention of the Buhrer patent and its inherent teaching away, it is submitted that amended independent claims 1 and 7 are neither disclosed nor made obvious by the Buhrer patent so that these claims are now allowable. For

these same reasons, it is submitted that claims 2-3 and 8-9 dependent from these independent claims are also allowable.

In the following *Claim Rejections - 35 USC § 103* section, dependent claims 5-6 and 10 were rejected under 35 USC § 103 as being obvious over the principal Buhrer patent in view of the JP 360191635. However, it is submitted that these claims are allowable at least for the same reasons as noted above for independent claims 1 and 7 from which they respectively depend.

For all of the foregoing reasons, it is submitted that the present application is in condition for allowance and such action is solicited.